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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,274	10/28/2003	Jeff Moreau	N1569-71511	4706

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EXAMINER

WOLLSCHLAGER, JEFFREY MICHAEL

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,274	Applicant(s) MOREAU, JEFF	
	Examiner Jeff Wollschlager	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/28/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 and 3 state they depend from "claim 19". There is no claim 19 in the instant application. For the purposes of examination, in view of parent application 10/286,564, the claims have been interpreted to depend from claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Weyant et al. (U.S. Patent 6,893,191; issued May 17, 2005; filing date July 19, 2002).

Regarding claim 1, Weyant et al. teach a pultrusion method of manufacturing sheet piling comprising: pulling fibers through a bath of a polyurethane based material; weaving/shaping/forming the fibers into a matrix; forming the sheet piling in a die; and curing the sheet piling (Abstract; col. 1, lines 30-38; col. 2, lines 51-58; col. 4, lines 11-18; col. 8, lines 51-58).

As to claims 2 and 3, Weyant et al. teach curing with heat and the fibers are glass (col. 1, lines 34-36; col. 4, lines 1-18).

Regarding claim 4, Weyant et al. teach a pultrusion method of manufacturing sheet piling comprising: a step for coating re-enforcing fibers with a polyurethane based material; a step for forming the sheet piling and a step for curing the sheet piling (Abstract; col. 1, lines 30-38; col. 2, lines 51-58; col. 4, lines 11-18; col. 8, lines 51-58).

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Irvine et al. (U.S. Patent 6,000,883; issued December 14, 1999).

Regarding claim 4, Irvine et al. teach an extrusion method of manufacturing sheet piling comprising: a step for coating re-enforcing fibers with a polyurethane based material; a step for forming the sheet piling and an inherent step for curing the sheet piling (col. 1, lines 4-7; col. 3, lines 53-56; col. 4, lines 10-12; col. 6, lines 10-15; col. 9, lines 35-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (U.S. Patent 5,294,461; issued March 15, 1994) in view of Irvine et al. (U.S. Patent 6,000,883; issued December 14, 1999) and further in view of Cheolas et al. (U.S. Patent 6,793,855; issued September 21, 2004; priority date November 16, 1998) or Katoot (U.S. Patent 6,146,556; issued November 14, 2000).

Regarding claims 1 and 4, Ishida teaches a pultrusion process for preparing fiber reinforced polymer composite sheets and other profiles comprising: pulling fibers through a bath of a polyurethane based material; weaving/shaping the fibers into a matrix; forming the sheet in a die; and curing the sheet (col. 1, lines 9-10, 26-35; col. 2, lines 48-54; col. 3, lines 35-42; col. 4, lines 49-63; col. 5, lines 14-16, 55-63; col. 6, lines 5-9, 19-31; col. 8, lines 18-32). Ishida clearly teaches a sheet having similar structural and physical properties as the sheet pile formed by the process of the instant application. Ishida meets all the operative steps of the claims, but Ishida does not clearly specify that the fiber reinforced polyurethane based sheet is a sheet pile. However, Irvine et al. teach an extrusion method of manufacturing a polyurethane based, fiber reinforced sheet pile.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to employ the process of pultrusion as taught by Ishida for preparing fiber reinforced polymer composite sheets and other profiles to make the specific sheet (e.g. sheet piling) taught by Irvine. The motivation to so is

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provided Katoot who teaches pultrusion offers significant product strength improvements compared to other methods, such as extrusion, and is applicable to sea retaining walls/sheet pilings (col. 4, lines 41-64; col. 13, lines 1-5, 31-36). Additional motivation is provided by Cheolas et al. who teach that pultrusion is a highly cost effective method for making fiber reinforced resin matrix composites (col. 1, lines 16-18). Further motivation is provided by Ishida who teaches that the pultrusion process makes it feasible to increase line speeds (col. 2, lines 52-54). As such, the claimed invention as a whole is rendered *prima facie* obvious over the combined teaching of the prior art.

As to claims 2 and 3, Ishida teaches the material is cured with heat and that the fibers are glass (col. 5, lines 58-63; col. 1, lines 26-35).

Conclusion

All claims are rejected.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone

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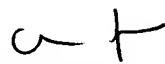
number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

Jeff Wollschlager
Examiner
Art Unit 1732

June 20, 2006


CHRISTINA JOHNSON
PRIMARY EXAMINER
6/23/06